



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/663,785 | 09/17/2003 | Sung Uk Moon | 242939US90 | 2973 |
| 22850 | 7590 | 03/08/2007 | EXAMINER | |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | WENDELL, ANDREW | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2618 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | NOTIFICATION DATE | DELIVERY MODE |
|--|-------------------|---------------|
| 3 MONTHS | 03/08/2007 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/08/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

| | | | |
|------------------------------|-----------------------------------|-------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/663,785 | MOON ET AL. | |
| | Examiner Andrew Wendell | Art Unit 2618 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 05 December 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-5 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-5 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1) Certified copies of the priority documents have been received.
 - 2) Certified copies of the priority documents have been received in Application No. _____.
 - 3) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gosselin (WO 01/65885) in view of Beckmann et al. (US Pat Appl# 2003/0022683) and further in view of Shimanuki (JP 10290190 A).

Regarding claim 1, Gosselin's reducing signaling traffic with multicasting in a wireless communication network teaches a radio communication system having a radio network controller, base stations and mobile stations (Fig. 1), to perform multicast communication, wherein the radio network controller comprises a control signal transmitter configured to divide a multicast group into subgroups of mobile stations "Multicast Group 1-3" (Fig. 1), to divide a control signal for the multicast group into control signals for the subgroups, and to transmit the control signals for the subgroups to the base station(Page 3 line 30-Page 4 line 29); and the mobile station comprises a response signal creator configured to create a response signal to the signal for at least one subgroup (Page 4 line 30- Page 5 line 15); and a response signal transmitter configured to transmit the response signal to the base station with the transmission

timing (Page 4 line 30-Page 5 line 15). Gosselin fails to teach the mobile station receiving a control signal and the mobile station having a transmission timing detector.

Beckmann et al. transmitting multicast messages in a radio system teaches a radio communication system having a radio network controller RNC (Fig. 1), base stations BS (Fig. 1) and mobile stations UE (Fig. 1), to perform multicast communication, wherein the radio network controller comprises a control signal transmitter configured to select a multicast group, to divide a control signal for the multicast group into control signals, and to transmit the control signals for the groups to the base station (Sections 0007-0013); and the mobile station comprises a control signal received for at least one subgroup (Sections 0007-0013 and Sections 0049-0054).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate the mobile station receiving a control signal as taught by Beckmann et al. into Gosselin's reducing signaling traffic with multicasting in a wireless communication network in order to transmit messages with little expenditure and reduce load (Section 0004).

Gosselin and Beckmann et al. fail to teach the mobile station having a transmission timing detector.

Shimanuki's transmission and reception apparatus for portable telephone system teaches a transmission timing detector configured to detect a transmission timing of the response signal from the signal and a response signal transmitter configured to transmit the response signal to the base station with the transmission timing (Basic Abstract).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate the mobile station having a transmission timing detector as taught by Shimanuki into the mobile station receiving a control signal as taught by Beckmann et al. into Gosselin's reducing signaling traffic with multicasting in a wireless communication network in order to reduce costs (Sections 0005 and 0006).

Regarding claim 2, claim 2 is rejected for the same reason as claim 1 since the recited elements would perform the claimed steps.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gosselin (WO 01/65885) in view of Beckmann et al. (US Pat Appl# 2003/0022683).

Regarding claim 3, Gosselin's reducing signaling traffic with multicasting in a wireless communication network teaches a radio network controller supporting multicast communication, the radio network controller comprising a control signal transmitter configured to divide a multicast group into subgroups of mobile stations "Multicast Group 1-3" (Fig. 1), to divide a control signal for the multicast group into control signals for the subgroups, and to transmit the control signals for the subgroups to a base station (Page 4 line 30- Page 5 line 15). Gosselin fails to clearly define control signals being sent even though it would be obvious.

Beckmann et al. transmitting multicast messages in a radio system teaches a radio network controller supporting multicast communication, the radio network controller comprising a control signal transmitter configured to select a multicast groups, to divide a control signal for the multicast group into control signals for the

groups, and to transmit the control signals for the groups to a base station (Sections 0007-0013 and Sections 0049-0054).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate control signals as taught by Beckmann et al. into Gosselin's reducing signaling traffic with multicasting in a wireless communication network in order to transmit messages with little expenditure and reduce load (Section 0004).

4. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gosselin (WO 01/65885) in view of Beckmann et al. (US Pat Appl# 2003/0022683) and further in view of Jellema et al. (US Pat# 6,707,900).

Regarding claim 4, Gosselin's reducing signaling traffic with multicasting in a wireless communication network in view of Beckmann et al. transmitting multicast messages in a radio system teaches the limitations in claim 3. Gosselin and Beckmann et al. fail to teach processing on only predetermined response signals.

Jellema et al. dynamic load limiting teaches wherein the radio network controller performs a predetermined processing on a predetermined number of response signals, the predetermined number of response signals responding to the signal for the group and being transmitted from mobile stations joining in the group; and the radio network controller performs processing on only the predetermined number of response signals, and any following response signal is unprocessed by the radio network controller, the following response signals being transmitted from the mobile stations joining in the group (Fig. 2 and Col. 2 lines 60-67).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a predetermined number of response signals as taught by Jellema et al. into control signals as taught by Beckmann et al. into Gosselin's reducing signaling traffic with multicasting in a wireless communication network in order to avoid overloaded conditions and have a more efficient system (Col. 1 lines 22-30).

Regarding claim 5, Jellema et al. further teaches wherein the predetermined number is one 26 (Fig. 2, the value could be set to one or any number).

Response to Arguments

| Applicant's Remarks | Examiner's Response |
|---|---|
| "In contrast, Gosselin fails to teach or suggest dividing a multicast group into subgroups of mobile stations or dividing a control signal for the multicast group into control signals for each subgroup, whatsoever." | Examiner believes applicant is reading more into the claims than is present. Gosselin is dividing the mobile stations in subgroups because a mobile station can only be connected to one base station at a time (unless a soft-handover situation for short time period). By sub grouping the base stations "Multicast Group 1-3" (Fig. 1), it is also sub grouping the mobile stations according to which base station it is communicating with. Given the broadest reasonable interpretation of the |

| | |
|--|--|
| | claim, Gosselin teaches the limitation. |
| "Beckmann, however, fails to teach or suggest an RNC configured to divide the multicast group into subgroups of mobile stations and divide a control signal for the multicast group into control signals for the subgroup, as recited in amended independent claim 1." | Gosselin teaches the limitation, see above comments. |
| "Shimanuki merely describes that the transmitter-receiver (20) detects the transmission timing created by the slave set (30), and fails to teach or suggest the features of "detecting a transmission timing of the response signal from the control signal transmitted from the radio network controller for at least one subgroup", as recited in independent Claim 1. | Gosselin teaches the limitation, see above comments. |

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Wendell whose telephone number is 571-272-0557. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


NAY MAUNG
SUPERVISORY PATENT EXAMINER


Andrew Wendell
Examiner
Art Unit 2618

2/21/2007